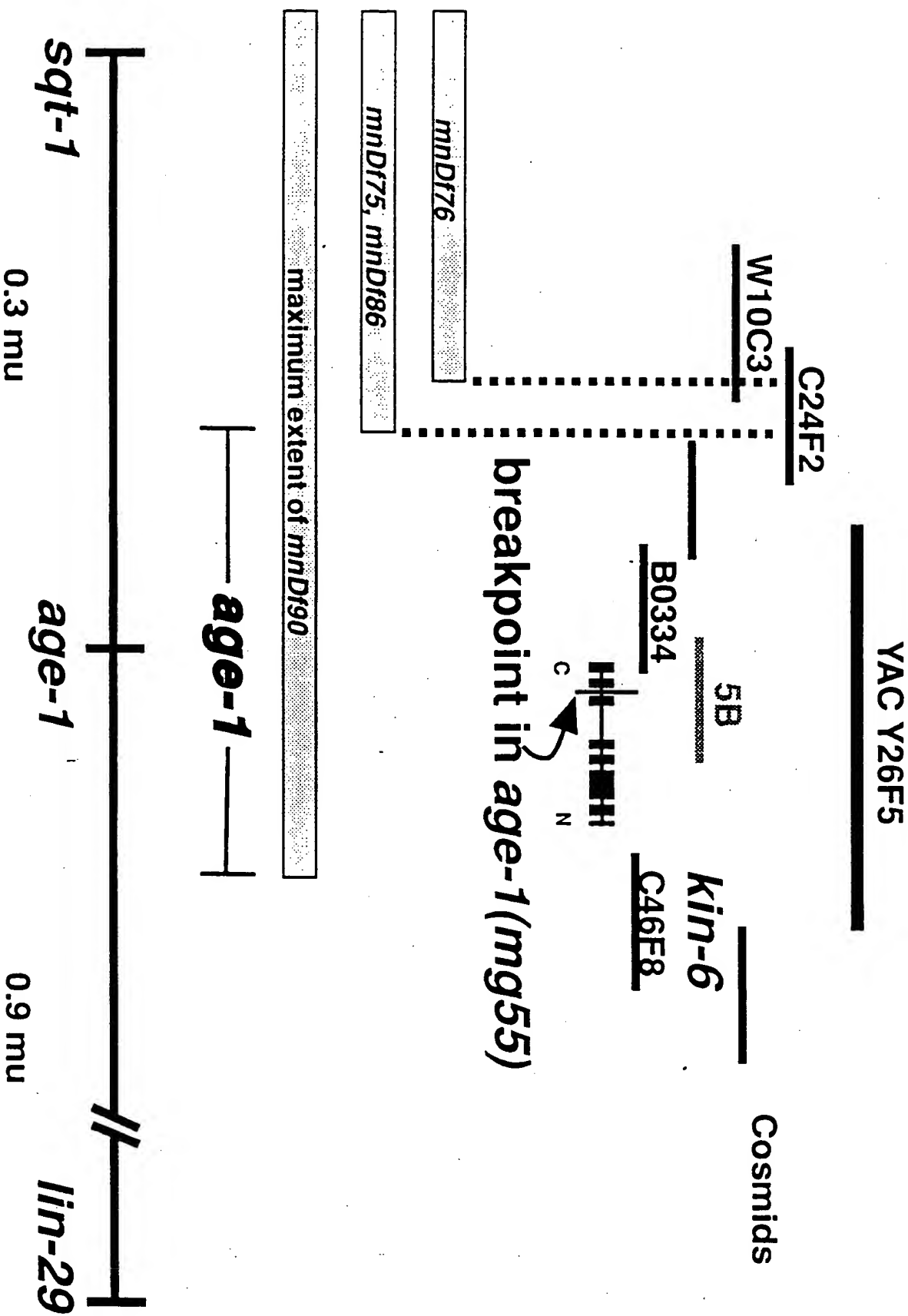


089084 genotype

FIG. 1

# Map of the *age-1* Region



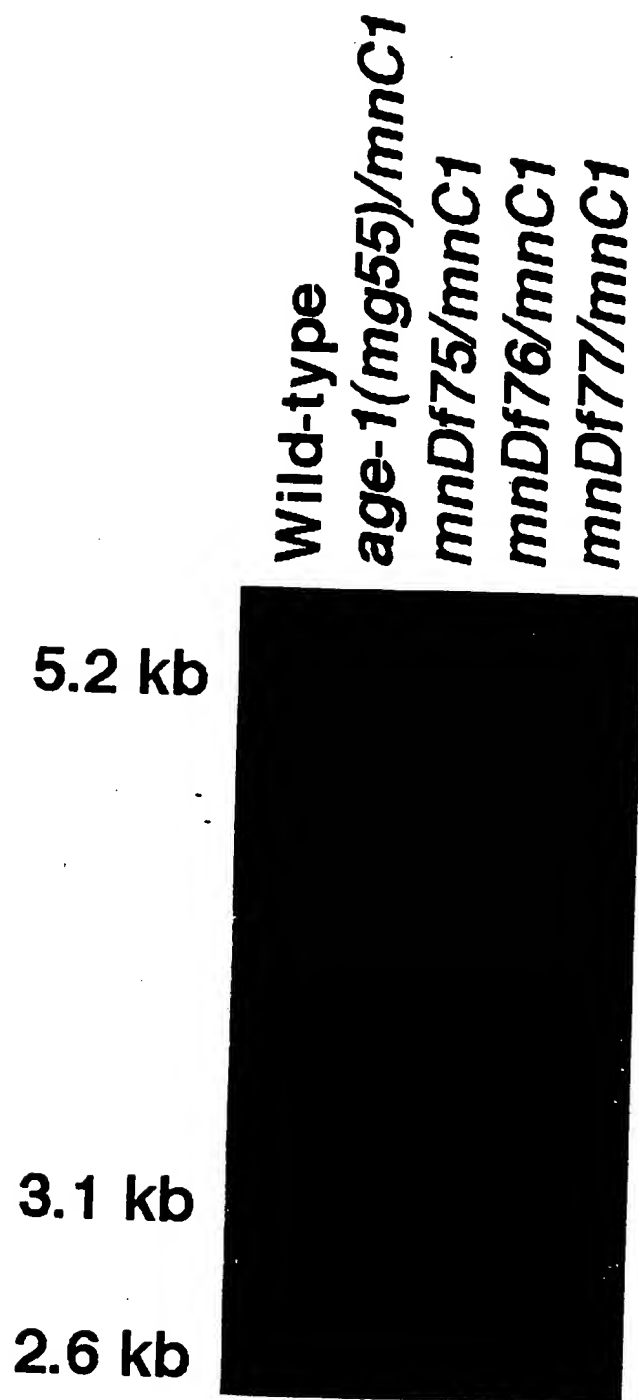


FIG. 2 B

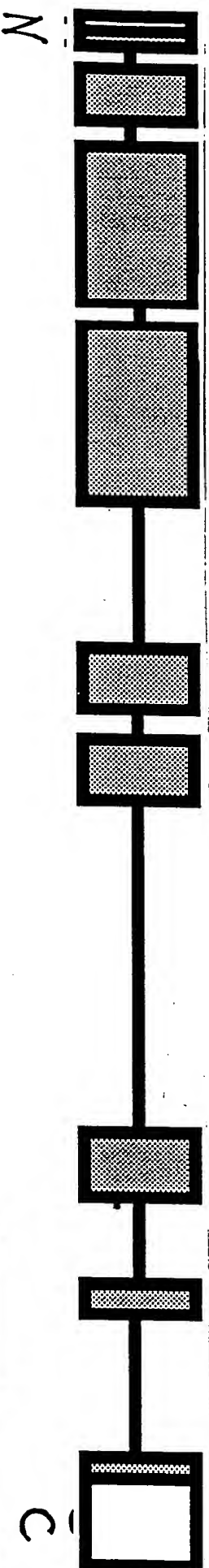
# Structure of age-1

$\frac{C}{R}$   $\frac{C}{B}$   $\frac{C}{B}$

$\frac{A}{A}$

$\frac{A}{A}$

$\frac{A}{A}$



Ø5B

B0334

500 bp

\*mg yif.



(SEQ ID NO:2)

1 cggaagccat ggagctcgag atctgattgc tggacacgga cggaactccg acgtatctcg  
61 cagatgcatg ttaacatttt acatccacaa ctgcaaacga tggctcgagca gtggcaaagt  
121 cgagaacgcc catcgctgga gaccgagaat ggcaaaggat cgctgctcct ggaaaatgaa  
181 ggtgtcgagc atatcatcac tatgtgtcca ttcggagaag ttattagtgt agtatttccg  
241 tggtttcttg caaatgtgag aacatcgcta gaaatcaagc tatcagattt caaacatcaa  
301 cttttcgaat tgattgctcc gatgaagtgg ggaacatatt ccgtaaagcc acaggattat  
361 gtgttcagac agttgaataa tttcggcgaa attgaagtta tatttaacga cgatcaaccc  
421 ctgtcgaaat tagagctcca cggcactttc ccaatgcttt ttctctacca acctgatgga  
481 ataaacaggg ataaagaatt aatgagtgat ataagtcatt gtctaggata ctactggat  
541 aaactggaag agagcctcga tgaggaactc cgtcaatttc gtgcttctct ctgggctcgt  
601 acgaagaaaa cgtgcttgac acgtggactt gagggtagca gtcactacgc gttccccgaa  
661 gaacagtact tgtgtgttgg tgaatcgtgc ccgaaagatt tggaaatcaa agtcaaggct  
721 gccaaagtga gttatcagat gttttggaga aaacgtaaag cggaaatcaa tggagtgtgc  
781 gagaaaatga tgaagattca aattgaattc aatccgaacg aaactccgaa atctctgctt  
841 cacacgtttc tctacgaaat gcgaaaattg gatgtatacg ataccgatga tcttcagat  
901 gaaggatggg ttcttcaatt ggctggacgt accacgtttg ttacaaatcc agatgtcaaa  
961 cttacgtctt atgatggtgt ccgttcggaa ctggaaagct atcgatgccc tggattcgtt  
1021 gttcgcgcgac aatcactagt cctcaaagac tattgtcgcc caaaaccact ctacgaacca  
1081 cattatgtga gagcacacga acgaaaactt gctctagacg tgctcagcgt gtctatagat  
1141 agcacaccaa aacagagcaa gaacagtgc atgggtatga ctgattttcg tccgacagct  
1201 tcaactcaaac aagtttcaat ttgggacctt gacgcgaatc ttatgatacg gctgtgaat  
1261 atttctggat tcgatttccc ggccgacgtg gatatgtacg ttcgaatcga attcagtgt  
1321 tatgtgggga cactgacgct ggcacaaaaa tctacaacaa aagtgaatgc tcaatttgca  
1381 aaatggaata aggaaatgta cacttttgat ctatacatga aggatatgcc accatctgca  
1441 gtactcagca ttcgtgtttt gtacggaaaa gtgaaattaa aaagtgaaga attcgaagtt  
1501 gggtgggtaa atatgtccct aaccgattgg agagatgaac tacgacaagg acaattttta  
1561 ttccatctgt gggctcctga accgactgcc aatcgtagta ggatcggaga aaatggagca  
1621 aggataggca ccaacgcagc gggtacaatt gaaatctcaa gttatgggtg tagagtctga  
1681 atgccgagtc aaggacaata cacatatctc gtcaagcacc gaagtacttg gacggaaact  
1741 ttgaatatta tgggtgatga ctatgagtcg tgtatcagag atccaggata taagaagctt  
1801 cagatgcttg tcaagaagca tgaatctgga attgtattag aggaagatga acaacgtcat  
1861 gtctggatgt ggaggagata cattcaaaag caggagcctg atttgctcat tgtgctctcc  
1921 gaactcgcat ttgtgtggac tgatcgtgag aacttttccg agctctatgt gatgcttgaa  
1981 aaatggaac cgccgagtgt ggcagccgcg ttgactttgc ttggaaaacg ttgcacggat  
2041 cgtgtgattc gaaagtttgc agtgagaaag ttgaatgagc agctgagccc ggtcacattc  
2101 catcttttca tattgcctct catacaggcg ttgaagtacg aaccgcgtgc tcaatcggaa  
2161 gttggaatga tgctcttgac tagagctctc tgcgattatc gaattggaca tcgacttttc  
2221 tggctgctcc gtgcagagat tgctcgtttg agagattgtg atctgaaaag tgaagaatat  
2281 cgccgtatct cacttctgat ggaagcttac ctccgtggaa atgaagagca catcaagatc  
2341 atcaccgcgac aagttgacat ggttgatgag ctcacacgaa tcagcactct tgtcaaagga  
2401 atgcaaaaag atgttgctac gatgaaactg cgtgacgagc ttcgatcgat tagtcataaa  
2461 atggaaaata tggattctcc actggatcct gtgtacaaac tgggtgaaat gataatcgac  
2521 aaagccatcg tcttaggaag tgcaaaacgt ccgttaatgc ttcactggaa gaacaaaaat  
2581 ccaaagagtg acctgcacct tccgttctgt gcaatgatct tcaagaatgg agacgatctt  
2641 cgccaggaca tgcttgttct tcaagttctc gaagttatgg ataacatctg gaaggctgca

Figure 4 (Sheet 1 of 2)

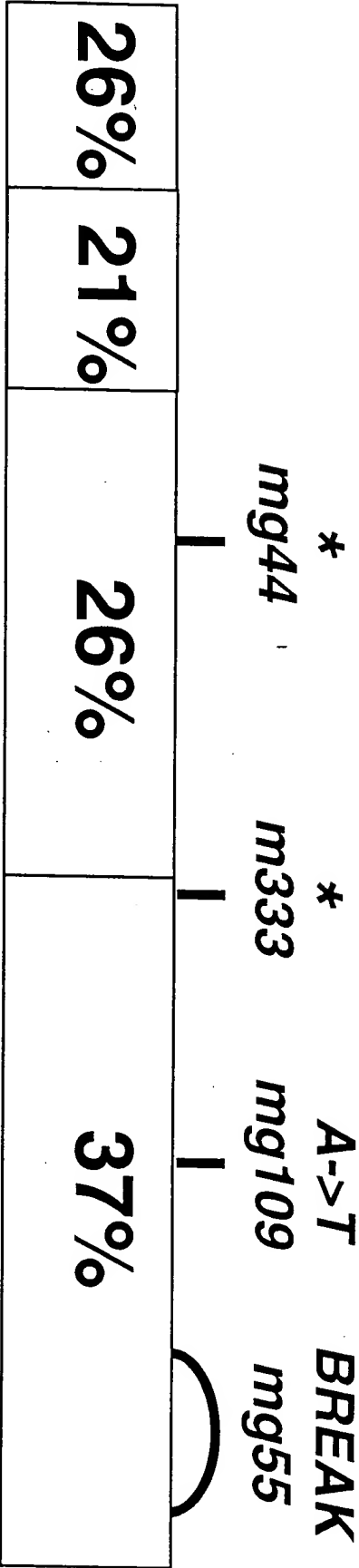
2701 aacattgatt gctgtttgaa cccgtacgca gttcttccaa tgggagaaat gattggaatt  
 2761 attgaagttg tgcctaattg taaaacaata ttcgagattc aagttggaac aggattcatg  
 2821 aatacagcag ttcggagtat tgatccttcg tttatgaata agtggattcg gaaacaatgc  
 2881 ggaattgaag atgaaaagaa gaaaagcaaa aaggactcta cgaaaaatcc catcgaaaag  
 2941 aagattgata atactcaagc catgaagaaa tattttgaaa gtgtcgatcg attcctatac  
 3001 tcgtgtgttg gatattcagt tgccacgtac ataatgggaa tcaaggatcg tcacagtgat  
 3061 aatctgatgc tctactgaaga tggaaaatat gtccacattg atttcggtca cattttggga  
 3121 cacggaaaga ccaaacttgg gatccagcga gatcgtcaac cgtttattct aaccgaacac  
 3181 tttatgacag tgattcgatc gggtaaattc gtggatggaa attcgcatga gctacaaaaa  
 3241 ttcaaaacgt tatgcgtcga agcctacgaa gtaatgtgga ataatcgaga tttgttcggt  
 3301 tccttgttca cttgatgct cggaatggag ttgcctgagc tgtcgacgaa agcggatttg  
 3361 gatcatttga agaaaaccct cttctgcaat ggagaaagca aagaagaagc gagaaagttt  
 3421 ttcgctggaa tctacgaaga agccttcaat ggatcatggt ctacaaaaac gaattggctc  
 3481 ttccacgcag tcaaactacta ctga

Figure 4 (Sheet 1 of 2)

264080-5480680



# AGE-1 WITH MUTATIONS AND PUTATIVE DOMAINS



p85 ras Unknown Lipid Kinase

100 a.a.

1146 AA

Fig. 5

(SEQ ID NO: 1)

1 MHVNILHPQL QTMVEQWQMR ERPSLETENG KGSLLLENEG VADIITMCPF  
51 GEVISVVPFW FLANVRTSLE IKLSDFKHQL FELIAPMKWG TYSVKPQDYV  
101 FRQLNNFGEI EVIFNDDQPL SKLELHGTFP MLFLYQPDGI NRDKELMSDI  
151 SHCLGYSLDK LEESLDEELR QFRASLWART KKTCLTRGLE GTSHYAFPEE  
201 QYLCVGESCP KDLESKVKAA KLSYQMFWRK RKAERINGVCE KMMKIQIEFN  
251 PNETPKSLLH TFLYEMRKLD VYDTDDPADE GWFLQLAGRT TFBVTNPVDKL  
301 TSYDGVRSSEL ESYRCPGFVV RRQSLVLKDY CRPKPLYEPH YVRAHERKLA  
351 LDVLSVSIDS TPKQSKNSDM VMTDFRPTAS LKQVSLWDL D ANLMIRPVNI  
401 SGFDFPADVD MYVRIEFSVY VGTTLTASKS TTKVNAQFAK WNKEMYTFDL  
451 YMKDMPPSAV LSIRVLYGKV KKLSEEFEEVG WVNMSLTDWR DELRQGGFLF  
501 HLWAPETAN RSRIGENGAR IGTNAAVTIE ISSYGGRVRM PSQGGYTYLV  
551 KHRSTWTETL NIMGDDYESC IRDPGYKKLQ MLVKKHESGI VLEEDEQRHV  
601 WMWRRYIQKQ EPDLLIVLSE LAFVWTDREN FSLEYVMLEK WKPPSVAAAL  
651 TLLGKRCTDR VIRKFAVEKL NEQLSPVTFH LFIPLIQAAL KYEPRAQSEV  
701 GMLLTRALC DYRIGHRLFW LLRAEIARLR DCDLKSEYR RISLLMEAYL  
751 RGNEEHIIKII TRQVDMVDEL TRISTLVKGM PKDVATMKLR DELRSISHKM  
801 ENMDSPLDPV YKLGEMIIDK AIVLGSARKP LMLHWKNKNP KSDLHLPFCA  
851 MIFKNGDDL R QDMLVLQVLE VMDNIWKAAN IDCCLNYPYAV LPMGEMIGII  
901 EVVPNCKTIF EIQVGTGFMN TAVRSIDPSF MNKWIRKQCG IEDEKKKSKK  
951 DSTKNPIEKK IDNTQAMKKY FESVDRFLYS CVGYSVATYI MGIKDRHSDN  
1001 LMLTEDGKYV HIDFGHILGH GKTKLGIQRD RQPFILTEHF MTVIRSGKSV  
1051 DGNSHELQKF KTLCEVEAYEV MWNNRDLFVS LFTLMLGMEL PELSTKADLD  
1101 HLKKTLCNG ESKEEARKFF AGIYEEAFNG SWSTKTNWLF HAVKHY

Figure 6

0808453-080797